

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 8055

Application of:

James Morrison

Art Unit: 3624

Serial No.: 09/217,542

Examiner: D. Lastra

Filed: December 21, 1998

For: **METHOD AND APPARATUS FOR DETERMINING
IF A USER WALKS AWAY FROM A SELF-SERVICE
CHECKOUT TERMINAL DURING OPERATION THEREOF**

MS Appeal Brief
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SEP - 8 2006

APPEAL BRIEF

Sir:

Appellant has filed a timely Notice of Appeal from the action of the Examiner, dated December 2, 2005, finally rejecting all of the claims in the present application. This is a replacement Appeal Brief, responding to the Notice of August 23, 2006.

(i) REAL PARTY IN INTEREST

The real party in interest is NCR Corporation.

(ii) RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

(iii) STATUS OF THE CLAIMS

Claims 27-38 are pending in the application.

Claims 27-38 are appealed.

Claims 27-38 stand rejected under 35 USC 103(a), as being unpatentable over Addy (6,056,087) in view of Terranova (6,098,879) in view of Cotton (4,630,110).

(iv) STATUS OF AMENDMENTS

Appellant did not file a Response subsequent to the Final Rejection.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

Claims 27-32 relate to a method of operating a self-service checkout terminal of a retail store.

As embodied in claim 27, the invention includes

recording a number of merchandise items for purchase by a user by said self-service checkout terminal (Page 18, lines 10-11; Figs. 1-6);

receiving movement signals from a plurality of adjoining detection zones of a floor mat in a checkout floor area adjacent to said self-service checkout terminal in response to said detection zones reacting to a weight of said user as said user walks on said detection zones by said self-service checkout terminal (Page 15, lines 1-21; Page 19, lines 1-17; Figs. 2-6);

tracking directional movements of said user from said movement signals by said self-service checkout terminal as said user walks about said checkout floor area in any direction while using said self-service checkout terminal (page 15, lines 18-23; Page 19, lines 1-22);

receiving a last movement signal as said user leaves said checkout floor area indicative of said user ceasing operation of said self-checkout terminal (Page 19, lines 1-22);

determining if a payment-tendered control signal was received by said self-service checkout terminal indicative of said user having tendered payment for said merchandise items prior to receipt of said last movement signal (Page 21, lines 1-4); and

if said payment-tendered control signal was not received by said self-service checkout terminal, determining a last direction of movement of said user prior to said user leaving said checkout floor area by said self-service checkout terminal (Page 19, lines 1-3), and operating a summoning device so as to summon retail personnel by said self-service checkout terminal if said last direction of movement was towards an exit of said store (Page 19, lines 11-15).

As embodied in claim 28, the invention further includes

wherein said summoning device comprises a status light above said self-service checkout terminal (Page 19, line 13; Fig. 1).

As embodied in claim 29, the invention further includes

wherein said summoning device comprises a paging system coupled to said self-service checkout terminal (Page 19, line 13).

As embodied in claim 30, the invention further includes

tracking rates of directional movements and operating said summoning device after determining from a final rate that said user is exiting said checkout floor area in haste (Page 21, lines 21-23).

As embodied in claim 31, the invention further includes

determining that said last direction of movement of said user prior to said user leaving said checkout floor area was towards a shopping area by said self-service checkout terminal (Page 19, lines 18-22);

receiving a new movement signal as said user reenters said checkout floor area (Page 20, lines 3-4); and

allowing said user to continue a retail transaction in response to receipt of said new movement signal (Page 20, lines 7-12).

As embodied in claim 32, the invention further includes

tracking directional movements of a cart of said user on said floor mat (Page 22, lines 8-10).

Claims 33-38 relate to a self-service checkout system.

As embodied in claim 33, the invention includes

a floor mat including a plurality of adjoining detection zones for producing movement signals in a checkout floor area in response to said detection zones reacting to a weight of said user as said user walks on said detection zones (Page 15, lines 1-21; Page 19, lines 1-17; Figs. 2-6);

a summoning device (Page 19, line 13; Fig. 1); and
a self-service checkout terminal adjacent to said
checkout floor area including a computer (Page 7, line
18; Fig. 3) for

recording a number of merchandise items for
purchase by said user (Page 18, lines 10-11);

receiving movement signals from said floor
mat (Page 15, lines 1-21; Page 19, lines 1-17; Figs. 2-
6);

tracking directional movements of said user
from said movement signals as said user walks about
said checkout floor area in any direction while using
said self-service checkout terminal (page 15, lines 18-
23; Page 19, lines 1-22);

receiving a last movement signal as said user
leaves said checkout floor area indicative of said user
ceasing operation of said self-checkout terminal (Page
19, lines 1-22);

determining if a payment-tendered control
signal was received, indicative of said user having
tendered payment for said merchandise items prior to
receipt of said last movement signal (Page 21, lines 1-
4); and

if said payment-tendered control signal was
not received, determining a last direction of movement
of said user prior to said user leaving said checkout
floor area, and operating said summoning device so as
to summon retail personnel if the last direction of
movement was towards an exit of the store (Page 19,
lines 1-15).

As embodied in claim 34, the invention further includes

wherein said summoning device comprises a status light above said self-service checkout terminal (Page 19, line 13; Fig. 1).

As embodied in claim 35, the invention further includes wherein said summoning device comprises a paging system coupled to said self-service checkout terminal (Page 19, line 13).

As embodied in claim 36, the invention further includes wherein the computer is also for tracking rates of directional movements and operating said summoning device after determining from a final rate that said user is exiting said checkout floor area in haste (Page 21, lines 21-23).

As embodied in claim 37, the invention further includes

wherein the computer is also for
determining that said last direction of movement of said user prior to said user leaving said checkout floor area was towards a shopping area (Page 19, lines 18-22);

receiving a new movement signal as said user reenters said checkout floor area (Page 20, lines 3-4);
and

allowing said user to continue a retail transaction in response to receipt of said new movement signal (Page 20, lines 7-12).

As embodied in claim 38, the invention further includes

wherein the computer is also for tracking directional movements of a cart of said user on said floor mat (Page 22, lines 8-10).

(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 27-38 are unpatentable under 35 USC 103(a) over Addy (6,056,087) in view of Terranova (6,098,879) in view of Cotton (4,630,110).

(vii) ARGUMENT

Addy (6,056,087) teaches a self-service checkout terminal for use in a retail store.

Terranova (6,098,879) teaches a system including a controller, and wireless interrogators and customer transponders for determining customer location and movement information at various locations around a convenience store-filling station-car wash. Terranova teaches determining a drive-off condition using a customer transponder.

Cotton (4,630,110) teaches a series of disjoint floor mats at an entrance to a store to determine two directions, in or out of the store.

To establish a *prima facie* case of obviousness, the Office has the burden of factually supporting at least the following three criteria (MPEP Section 2142):

- (1) the prior art reference (or references when combined) must teach or suggest all the claim limitations;
- (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; and

(3) there must be a reasonable expectation of success found in the references.

THE REJECTION OF CLAIMS 27-38 UNDER 35 U.S.C. §103(a) IS IMPROPER BECAUSE THE REFERENCES FAIL TO TEACH EACH AND EVERY ELEMENT OF APPELLANT'S CLAIMS.

Appellant's claims recite determination of customer movement in any direction about adjoining detection zones in a floor area adjacent a self-service checkout terminal.

Independent claim 27 recites in relevant part with emphasis added:

receiving movement signals from a plurality of **adjoining** detection zones of a floor mat in a checkout floor area adjacent to said self-service checkout terminal in response to said detection zones reacting to a weight of said user as said user walks on said detection zones by said self-service checkout terminal;

tracking directional movements of said user from said movement signals by said self-service checkout terminal as said user walks about said checkout floor area **in any direction** while using said self-service checkout terminal;

Independent claim 33 recites in relevant part with emphasis added:

a floor mat including a plurality of **adjoining detection zones** for producing movement signals in a checkout floor area in response to said detection zones

reacting to a weight of said user as said user walks on said detection zones;

...

a self-service checkout terminal adjacent to said checkout floor area including a computer for

...

tracking directional movements of said user from said movement signals as said user walks about said checkout floor area **in any direction** while using said self-service checkout terminal;

The reference relied upon by the Examiner to show this feature is Cotton (4,630,110). However, Cotton (4,630,110) teaches a series of disjoint floor mats and further teaches determination of only two directions, in or out of a store.

THE REJECTION OF CLAIMS 27-38 UNDER 35 U.S.C. §103(a) IS IMPROPER BECAUSE THE OFFICE HAS FAILED TO PROVIDE A PROPER SUGGESTION OR MOTIVATION TO COMBINE THE REFERENCES.

The Office has provided no teaching or motivation from within the references that would motivate one skilled in the art to apply the entrance floor mat of Cotton adjacent a self-service checkout terminal, or to use that floor mat to alert security personnel.

There is no teaching or suggestion in Cotton to apply the entrance floor mat adjacent a self-service checkout terminal.

There is no teaching or suggestion in Terranova to apply the drive-off determining techniques to a floor mat. Further, one skilled in the art would not be motivate to use

the drive-off techniques of Terranova because they rely on equipment that must be carried by the customer or installed in the customer's vehicle.

THE REJECTION OF CLAIMS 27-38 UNDER 35 U.S.C. §103(a) IS
IMPROPER BECAUSE THE OFFICE HAS FAILED TO PROVIDE A
REASONABLE EXPECTATION OF SUCCESS.

"The expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Dow Chemical Co.* 837 F.2d 469 5 S.P.Q.2D (BNA) 1529 (Fed. Cir. 1988). The Office has failed to provide a citation from within the references that provide a reasonable expectation of success for the combination of the references. The references do not show or suggest determination of customer movement in any direction about adjoining detection zones in a floor area adjacent a self-service checkout terminal. Further, since the drive-off techniques of Terranova require a customer device, there can be no reasonable expectation of success.

CONCLUSION

Appellant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and that the rejection of claims 27-38 is improper.

Appellant further submits that claims 27-38 are allowable and respectfully request that the rejection of claims 27-38 by the Examiner be reversed by the Board.

Respectfully submitted,

A handwritten signature in cursive script, reading "Paul W. Martin", written over a horizontal line.

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(viii) CLAIMS APPENDIX

27. A method of operating a self-service checkout terminal of a retail store, comprising the steps of:

 recording a number of merchandise items for purchase by a user by said self-service checkout terminal;

 receiving movement signals from a plurality of adjoining detection zones of a floor mat in a checkout floor area adjacent to said self-service checkout terminal in response to said detection zones reacting to a weight of said user as said user walks on said detection zones by said self-service checkout terminal;

 tracking directional movements of said user from said movement signals by said self-service checkout terminal as said user walks about said checkout floor area in any direction while using said self-service checkout terminal;

 receiving a last movement signal as said user leaves said checkout floor area indicative of said user ceasing operation of said self-checkout terminal;

 determining if a payment-tendered control signal was received by said self-service checkout terminal indicative of said user having tendered payment for said merchandise items prior to receipt of said last movement signal; and

 if said payment-tendered control signal was not received by said self-service checkout terminal, determining a last direction of movement of said user prior to said user leaving said checkout floor area by said self-service checkout terminal, and operating a summoning device so as to summon retail personnel by said self-service checkout terminal if said last direction of movement was towards an exit of said store.

28. The method of claim 1, wherein said summoning device comprises a status light above said self-service checkout terminal.

29. The method of claim 1, wherein said summoning device comprises a paging system coupled to said self-service checkout terminal.

30. The method of claim 1, further comprising tracking rates of directional movements and operating said summoning device after determining from a final rate that said user is exiting said checkout floor area in haste.

31. The method of claim 1, further comprising:

determining that said last direction of movement of said user prior to said user leaving said checkout floor area was towards a shopping area by said self-service checkout terminal;

receiving a new movement signal as said user reenters said checkout floor area; and

allowing said user to continue a retail transaction in response to receipt of said new movement signal.

32. The method of claim 1, further comprising:

tracking directional movements of a cart of said user on said floor mat.

33. A self-service checkout system comprising:

a floor mat including a plurality of adjoining detection zones for producing movement signals in a checkout floor area in response to said detection zones reacting to a weight of said user as said user walks on said detection zones;

a summoning device; and
a self-service checkout terminal adjacent to said checkout floor area including a computer for
recording a number of merchandise items for purchase by said user;
receiving movement signals from said floor mat;
tracking directional movements of said user from said movement signals as said user walks about said checkout floor area in any direction while using said self-service checkout terminal;
receiving a last movement signal as said user leaves said checkout floor area indicative of said user ceasing operation of said self-checkout terminal;
determining if a payment-tendered control signal was received, indicative of said user having tendered payment for said merchandise items prior to receipt of said last movement signal; and
if said payment-tendered control signal was not received, determining a last direction of movement of said user prior to said user leaving said checkout floor area, and operating said summoning device so as to summon retail personnel if the last direction of movement was towards an exit of the store.

34. The system of claim 33, wherein said summoning device comprises a status light above said self-service checkout terminal.

35. The system of claim 33, wherein said summoning device comprises a paging system coupled to said self-service checkout terminal.

36. The system of claim 33, wherein the computer is also for tracking rates of directional movements and operating said summoning device after determining from a final rate that said user is exiting said checkout floor area in haste.

37. The system of claim 33, wherein the computer is also for determining that said last direction of movement of said user prior to said user leaving said checkout floor area was towards a shopping area;

receiving a new movement signal as said user reenters said checkout floor area; and

allowing said user to continue a retail transaction in response to receipt of said new movement signal.

38. The system of claim 33, wherein the computer is also for tracking directional movements of a cart of said user on said floor mat.

(ix) EVIDENCE APPENDIX

No evidence pursuant to §§1.130, 1.131, or 1.132 or any other evidence has been entered by the Examiner or relied upon by Appellant.

(x) RELATED PROCEEDINGS APPENDIX

There are no related decisions rendered by a court or the Board or copies of such decisions.